

2h

Best Available Copy



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

mm

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/140,739 08/27/98 ZRNIC

D DOC-9801

PM82/1014

JOSEPH H MCGLYNN
6111 SADDLE HORN DR
FAIRFAX VA 22030

EXAMINER

GREGORY, B

ART UNIT

PAPER NUMBER

3662

DATE MAILED:

3
10/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/140,739

Applicant(s)
Dusan S. Zrnica et al.

Examiner
Bernarr Earl Gregory

Group Art Unit
3662



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three (3) month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-6 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 3662

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Throughout claims 1-6, the uses of the terms "overlaid signals" and "overlaid echoes" are indefinite and unclear in context.

In independent claim 1, "special code" is indefinite and unclear in context. On lines 6-7 of claim 1, the phrase "to make echoes form a specified range ambiguous interval coherent" is indefinite and unclear in that it does not make logical sense in context; perhaps, the word "form" was intended to be "from." Claims 1-2 are indefinite and unclear in that they fail to set forth even one positive method step. Conventionally, method steps in claims start with a present participle.

Throughout claims 3-4, the uses of "stronger" and "weaker" are indefinite and unclear in context. For example, do these terms refer to power, amplitude, or something else?

Throughout claims 3-4, the use of the following lack antecedent basis: "the time series sequence"; "the ground clutter"; "the ratio"; "the widths"; "the time series samples"; "the power"; "the spectrum width"; "the weaker trip echo"; "the stronger trip echo"; "the mean Doppler velocity"; "the mean power"; "the mean power ratio"; "the stronger to weaker trip echo"; "the power ratio"; "the error"; "the corrected mean power"; "the cohered weaker trip echo"; "the

Art Unit: 3662

mean velocity”; “the magnitude spectrum”; “the de-convolution matrix”; and, “the next range gate.” Claims 3-4 are indefinite and unclear in that certain method steps use different forms of the verb (e.g., “transmitting ...” and “filter ...”), but other method steps start with noncausative verbs (e.g., “cohere ...”).

In independent claim 5, the use of “suitable” is indefinite and unclear in context. On line 8 of claim 5, the language is indefinite and unclear since the verb “multiplying” lacks a direct object. On line 11 of claim 5, “a ... matrices” is unclear since “a” is used with a plural noun. In claim 5, the use of the following lack antecedent basis: “the ground clutter”; “the signal samples”; “said signal samples”; “it”; “the spectral coefficients”; “the T1/T2 ratio”; “the clutter filter”; “the number”; “the column vectors”; “the clutter power”; “said clutter matrix”; “the result”; and, “said column vectors.”

In independent claim 6, the use of the following lack antecedent basis: “the signal spectrum”; “said magnitude domain deconvolution”; “the inverse”; “the magnitude convolution matrix”; “the mean velocity”; “the deconvolved spectrum”; “the residual coefficients”; and, “the spectrum width and mean power.”

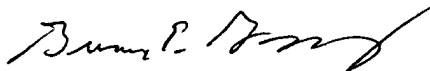
Dependent claims 2 and 4 are unclear in that they depend from unclear independent claims 1 and 3.

Art Unit: 3662

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McCorkle ('677); Kirimoto et al ('611); King et al ('174); Bryant ('386); Rubin ('799); and, Brandsetter et al ('048) are all of general interest for showing prior art methods and apparatus of resolving radar ambiguities.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr Gregory whose telephone number is (703) 306-5765. The Art Unit FAX number is (703) 306-4195.



Bernarr E. Gregory
Primary Examiner
Art Unit 3662

beg

October 8, 1999